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An Essay

on

Cynanche Trachealis or Croup

By

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Reviewing the long, complicated, and loathsome train of diseases to which the just fiat of an inscrutable Omnipotence, has condemned the "Creature, man," we frequently meet with those, whose arrows appear almost exclusively aimed - When the innocent, but insensible, moments of infancy have passed away; when gay boyhood, with its giddy scenes, appears to memory, like the fleeting incidents of a dream; when youth, with all its vices, all its errors, and all its pleasures has glided away, & man, in the meridian of his existence, stands revealed in his true character, endowed with reason, virtue and all those qualities which so eminently distinguish his nature; here the rude shaft of some peculiar disease strikes him & the parent, friend, and husband falls -

Again, we see tottering along, one, whose

grey locks, proclaim him wandering on life's narrow verge; the quiver of the "grim messenger" contains an arrow destined for him; he sinks, and is numbered with the dead.

The numbers annually cut off by Fever, by Phthisis and other intractable diseases, cannot fail, sensibly and painfully to arrest our attention. In this catalogue, is very frequently found, those who have advanced but a step on the threshold of active existence, but, by a rapid expansion of intellect & virtue, have bade fair to prove a blessing to Society, to Science, and to the world. One, perhaps, in whom the fond affections of a doting parent, were centred, and to whom he looked as the sole prop of his declining years; one, who was yet treading the flowery paths of youth; here Consumption, with her unrelenting grasp, claims him for her own; he falls, and we see him no more.

Again, when the tendrils of the human heart, are hourly intertwining themselves more intimately around the attractive infant; when the fine threads of nature's web, are daily binding more & more indissolubly, the fond parent to his engaging child, as he sedulously watches each expanding idea, and is framing new schemes to beguile the tediousness of Life; here we find Trachitis committing its ravages, with an unsparing hand, sweeping away the little prattlers, ere they had scarce known what it was to exist - - If there be a disease, to which, the attention of the humane and skilful physician should be particularly directed, it certainly is this - Whether we consider the great mortality which has attended it; the dread with which physicians have approached it; the interesting character of its victims, or the discrepancy of opinion, which has existed, respecting its pathology and treatment, it is alike worthy the attentive

consideration of all who feel interested in the cause of Humanity; of all who have at heart the reputation of their profession — " —

Cynanche Trachealis; Trachitis; the croup or Croup of common language; notwithstanding the credit of having first described its symptoms, and the mode of practice, in the year 1765 is due to Dr. Home (a cotemporary of the illustrious Cullen) it may easily be traced to a much more remote date - Professor Chapman has found a very distinct account of it, in one of the earliest volumes of the transactions of the Royal Society of London; and an Italian writer named Martin Ghisi in the year 1749 particularly notices this affection - The course of Cynanche Trachealis, has been most fearfully devastating - There have been comparatively few of those subjected to its baneful influence, who have not simultaneously terminated, their agony & their existence;

in fact, so universally was this the case that the appellation of "opprobria medicorum" was, by many physicians assigned to it; as a disease in which Science, Practical Skill & experience, were of no avail; where medicine was useless & death inevitable. It may be asked, from what did this arise? In the first place, the view taken of its Pathology was erroneous, and of consequence, the practice founded thereon, was incorrect, feeble & inert — The nature of the affection, is, in itself, highly dangerous, and requires a prompt recurrence to vigorous and decisive measures; instead of this, considering active depletion, as little better than actual murder, they attempted to subdue the disease by the administration of articles entirely inappropriate; or, by assuming a correct plan at first, but wielding their weapons, with so tremulous, faultering, and undecisive a hand, that instead of making the impression intended, they rather aggravated the calamity. " — " — Without attempting to bring into view the various Theories

entertained, and the various modes of practice thence deduced, permit me simply to mention, that by systematic writers generally, it has been divided into Inflammatory & Spasmodic, but that according to the views of Professor Chapman, in which he is sanctioned, by the Phenomena of the disease, and by "Post mortem" examinations; at first, there is either a spasmodic or inflammatory affection of the Larynx, and in its subsequent stages, it partakes of one, or other forms of Peripneumonia Notha"; there is either a sanguineous congestion of the Lungs, or they are engorged with mucus or Lymph - We ~~would~~ certainly, be fully justified in pronouncing that case Spasmodic, where the child is suddenly awakened during the night, with a dry stridulous cough, which bears some resemblance to the shrill barking of a dog; the active, irritated pulse, an anxious, and indescribably wretched expression of countenance and a difficulty of respiration, amounting in some instances to almost suffocation; these symptoms occur-

ring suddenly, and without any previous manifestation of diseased action, the case is Spasmodic, and is one of the most frequent, as well as most dangerous forms of the disease, speedily terminating the existence of the afflicted innocent, unless prompt and active measures be instantly adopted, and boldly carried into practice — Again, we find the disease advancing gradually, with the ordinary catarrhal symptoms, such as heaviness, suffusion of countenance, defluxions from the eyes and nose, a harder and more shrill cough than usual, with various degrees of fever, which, with the cough is always exacerbated at night; here we have an inflammatory stage, dependent probably on cold, for its exciting cause, or perhaps, on a degree of Spasmodic constriction, as, when this exists for a length of time, inflammation is an inevitable consequence — —

By Thomas and some other writers, it is said, that "Croup never attacks a person arrived at puberty" — True it is

that the subjects of this painful affection, are most commonly, from 1 to 5 yrs. of age; yet, there have been instances, where adults have been assailed by it. Dr. Chapman, in his lectures, relates the cases of two Ladies in this city, to whom he has been called in repeated attacks of Croup, and so strongly (says he) "are they predisposed to it, that they scarcely ever escape when exposed to its causes." These cases are to be considered rare and anomalous, deviations from the ordinary course and character of the disease". Among the causes by which it is most frequently induced, may be ranked some of the applications of cold; it is found to be most prevalent in those situations where the atmosphere is damp, cold & austere, and more particularly on the seaboard. In proceeding to the treatment of Tracheitis, it may with propriety be premised, that even admitting the distinction, so strenuously contended for, it does not necessarily lead to any particular difference in practice; depletion in both cases is equally

beneficial, and the exhibition of antispasmodics, if not pernicious, at least entirely useless. "Completely formed there is no material difference between the two species, and henceforward their progress is nearly or exactly similar". Called in the commencement then, of an attack of Croup, we in the first place endeavour to produce Emesis, and for this purpose Tart. of Antimony, at short intervals, is probably one of the best articles with which we are acquainted. Its operation may be expedited, by putting the patient for 10 or 15 min. into a warm bath; if vomiting be thus induced, the patient in many cases will get well without further medicine; but when not induced, or the desired end is not obtained by it, v. s. is to be resorted to and carried to a considerable length, at the same time renewing the Tart. Ant. & warm bath. In a majority of cases the symptoms will now yield; if however, they should not, which will sometimes happen, a blister is to be applied to the throat & Leeches to the back of the

neck. When the attack is of so very violent a nature as to resist all the preceding attempts to subdue it, and our patient appears fast sinking under its violence, we instantly seize the Lancet & bleed "ad deliquium". This is a point of practice, to the omission, or neglect of which no doubt many lives, which might otherwise have been saved, and perhaps have proved a blessing to the world, have been wantonly sacrificed. The parent viewing its apparently dying child, can hardly be made to believe, but that farther depletion must inevitably hasten its fate; and the physician, although he may be sensible of its importance, either advises the measure in so hesitating a manner, as merely to have the effect of confirming the friends of the patient in their objections; or, fearful of incurring the responsibility necessarily attending it, he neglects even making the proposal, and thus suffers death to take possession of his victim, without making that decided effort so necessary to rescue it from his fangs; that

effort which so seldom fails obliging him to relinquish his hold. That the generality of mankind should labour under the impression, that extreme depletion & more particularly v. s ad deliquium, in case of young patients, cannot but prove pernicious is very natural. They are not aware of the wonderful powers with which nature has gifted children, by which they are enabled to resist the attacks of disease and hence to bear depletion of every kind, to an extent, which comparatively speaking, would exhaust the vital energies of an adult; that this is a fact, there cannot be a doubt. Mothers have been found clasped in the arms of death, from exposure to intense cold, while the infant at her bosom has retained its powers of Life, and smiled delightedly on those who approached to rescue it. Also while contagion has been sweeping off its thousands, number out of the same family sinking under its force, the infant has been found apparently bidding defiance to its attacks, or if attacked, regaining its health, with

a rapidity truly astonishing. That venaesection may be carried to a considerable extent is susceptible of proof, deduced both from experience & physical fact. It is a point as well established as any other in Physiology, that previous to puberty, the fluids bear a greater proportion to the solids, than they afterwards do. This vascular fulness, cannot but render the system more susceptible of inflammatory action; consequently diseases generally bear depletion better, or to a greater extent, before, than after that period —
Fully impressed with this fact, it becomes the duty of a Physician, when called to an extreme case (of Croup particularly) to endeavour in the first place to overcome the scruples & prejudices of relatives, by impressively assuring them, that recovery is impossible, unless this prompt & energetic measure be instantly adopted, and to point out the probability of its succeeding. If seconded by that confident tone & manner, which ought always to mark the conduct of the Physician, conscious of acting for the best,

he will almost invariably succeed, and generally will be rewarded, by a happy termination of the affection. By whom this practice was introduced, appears somewhat doubtful; it has however found two of its most zealous & able advocates, in Professors Coxe & Chapman of this school, and to them is most unquestionably to be accorded the merit of having, both by their practice, and by the expression of their sentiments, in their public lectures, introduced it, into almost general use. In proof of its efficacy, and of the reliance placed by Dr. Coxe in this mode of treatment, I may here cite a case of one of his own children, mentioned in his lectures. About midnight the child awoke with all the ordinary symptoms of Croup. Tart. Ant. was immediately resorted to, and administered to a great extent, without the desired effect. its face became livid; its extremities cold; respiration was almost suspended, and in fact it exhibited all the symptoms of approaching dissolution. Bloodletting was then resorted to and ℥viij were drawn; the effect was obvious and the

alarming symptoms yielded in a measure, but the impression was not permanent, and in a short time they all returned; the vein was again opened, and blood to the amount of ℥vj taken - This was followed by a subsidence of the symptoms; but the pleasing hopes thus excited were premature, for soon the insidious foe returned a third time to the charge with augmented violence - The Doctor & the parent now describes himself, as scarce knowing what steps to pursue - On the one hand, it appeared that further depletion must inevitably destroy his child, by exhausting the powers of the system; on the other he laboured under the full conviction, that dissolution must soon take place unless some decisive course was adopted; as he had witnessed the good effect of v.s. in the two preceding attacks his resolution overcame his feelings; he seized the lancet, and a third time opened the vein; blood was drawn to the amount of ℥vj when the symptoms gave way, and the disease was completely overcome; and, says the Doctor, "I was astonished to see the rapid recovery of the

child". Nothing more seems necessary to prove its utility and to convince the sceptical, than to direct their attention to the comparatively trifling degree of mortality, which now attends it. Once, vaunted among the Opprobria Medicorum, death marking its progress at every step, it is now met by Physicians generally, with a confidence they dare not extend, to many other diseases of this tender age. When the violent symptoms, or the affection is subdued, we next endeavour to evacuate the alimentary canal & for this purpose large doses of Calomel are best. If after this, as occasionally happens, the cough, hoarseness, tightness of chest, & deficiency of expectoration remains, the Polygala Senega, or some other expectorant must be administered; the Senega is perhaps the best. —

These remarks are solely applicable to croup in its early stages, when the disease is solely confined to the Larynx, or at least to the upper portion of the Trachea. But where it has existed for 10 or 15 hours, it assumes a new and highly dangerous aspect. The Bronchia or

Pulmonary cells, having now become implicated, respiration is impeded by the secretion & lodgment of large quantities of mucus or Lymph; or, by a congested state of the Lungs from Blood - All the symptoms of an interrupted circulation are now presented - The eyes are prominent and inflamed, with, mostly, widely dilated pupil, the complexion is mottled; respiration is very laborious, attended with a full & disturbed pulse & the countenance has a wild and haggard appearance - In most cases it requires the nicest discrimination to form a just diagnosis, the symptoms in the two forms, bearing a very close resemblance to each other; this, however, is essentially necessary, in order to lead to a correct mode of practice - When it proceeds from collections of mucus or Lymph, evidences of such accumulations are generally manifested; there is an expectoration of a pituitous secretion, in greater or less quantity, respiration is attended by a peculiar hissing noise, caused probably by the air, forcing its way between the obstructing masses of mu-

cus. Sanguineous congestion, on the contrary, is unaccompanied by this discharge, and the peculiar "hiping" so invariable an attendant of the other, is not observable here; in the former case the pulse is languid whereas here it is full, though very irregular and easily compressible. Children of a florid countenance and plethoric habit are particularly liable to the latter form. Our first indication in a case of the first form is to free the pulmonary organs from their burthen, and to re-establish a healthy circulation. An emetic of Tart. Ant. or what is preferable, of the juice of onion or Garlic, is to be immediately administered & if possible copious vomiting induced, and as in the forming stage of croup, so here, the warm bath will much assist its operation. As an Emetic the powers of Onion or Garlic juice at this juncture is really surprizing, and have frequently proved more eminently successful than any other which has been resorted to. In addition to the testimony which al-

ready exists, to this effect. I will here mention a case related to me by an eminent practitioner of this city. His daughter, aged 2 yrs. laboured under Croup of a most obstinate character; every thing which considerable experience in treating the disease could suggest, or paternal solicitude could devise was put into requisition, but without avail; the susceptibility of the system to medicinal impression seemed entirely exhausted, and every effort to restore it, by ordinary means, proved unavailing. Discouraged by his fruitless exertions, and expecting every moment the little sufferer would breath her last, he retired, requesting to be called when the agonizing conflict was over; What however, practical skill, experience, and the persevering efforts of a father could not effect, maternal affection, happily accomplished; bruised onions were applied to the epigastric region, while at the same time, a quantity of juice was conveyed into the stomach; the effect was almost instantaneous, and in a few minutes, instead of beholding his child, in

the cold embrace of death, the happy father entered, to see vitality restored, and to witness a speedy recovery - After copious vomiting, vesicatories are to be resorted to; either cloths wrung out of hot water & applied so as to blister, or, a blister is to be applied over the breast - We now endeavour to keep up a free discharge of mucus, by the free use of expectorants; Antimonial wine, or the preparations of Squilly answer this purpose very wele; Calomel has been used and is highly extolled, by many practitioners - The Hive Syrup of Dr. Cope, has obtained a high degree of celebrity, and from the success attending its exhibition, appears to merit wele, the confidence of the Medical Faculty - In cases of sanguineous congestion after having premised an emetic, the warm bath & vesicatories, as in the other form, blood is to be drawn, but with very great care, lest we induce too great a degree of debility, which would be the inevitable consequence of a hasty and in-

cautious detraction of blood - An engorgement of the pulmonary organs "takes out of the general circulation, such a large portion of blood, and confines it in so small a part, that any considerable loss by venasection, is very sensibly felt, creating in some cases prompt and inseparable exhaustion" -

If existing circumstances preclude the use of the Lancet, topical depletion by means of Cups or Leeches, applied to the back is to be resorted to - The subsequent treatment is precisely the same as in the other form of the disease -

Much controversy has arisen respecting the existence of a layer of coagulable Lymph in the Larynx, by which suffocation is sometimes induced - Since, however, copious depletion in the treatment has been gener-

ally adopted, dissections prosecuted for the express purpose, have almost invariably failed to prove the existence of such a membrane; the appearances exhibited, have been the same as are usually presented where a slight degree of inflammation has existed - That it has existed, occasionally, and probably been the cause of death there can be no doubt as such assertions have been made by persons entitled to the most implicit confidence; cases too, are recorded where a rapid recovery has followed its expulsion by coughing or a surgical operation; yet it is probable that in the generality of cases, where the disease has advanced so far, an operation would prove merely palliative, and only have the effect of prolonging the sufferings of the patient — " — "

In all the acute diseases of infancy and more particularly, in one, so formidable in its nature and so rapid in its career as Croup it is of the utmost consequence that the Physician be assiduous and unremitting in his attentions, watching with an attentive eye every change of the disease, and the ~~operation~~ action of medicines which are here peculiarly uncertain in their operation - The obligations imposed by his profession and every principle of humanity demand a persevering and determined assiduity on his part, and in a majority of cases, if he acts with firmness, he will be abundantly rewarded by the gratification of restoring a child to the arms of its Parents, and by the increased confidence reposed in his practical skill by a discerning & grateful public